

# Numbers in Standard Form (I)

Write the following expanded numbers in standard form.

1.  $(3 \times 10^{11}) + (4 \times 10^{10}) + (4 \times 10^9) + (4 \times 10^8) + (1 \times 10^7) +$   
 $(2 \times 10^6) + (6 \times 10^5) + (6 \times 10^4) + (3 \times 10^3) + (2 \times 10^2) +$   
 $(3 \times 10^1) + (1 \times 10^0) + (8 \times 10^{-1}) + (6 \times 10^{-2}) + (1 \times 10^{-3})$   
=

2.  $(8 \times 10^{11}) + (3 \times 10^{10}) + (8 \times 10^9) + (1 \times 10^8) + (6 \times 10^7) +$   
 $(2 \times 10^6) + (5 \times 10^4) + (8 \times 10^3) + (5 \times 10^2) +$   
 $(3 \times 10^1) + (4 \times 10^0) + (2 \times 10^{-1}) + (3 \times 10^{-2}) + (3 \times 10^{-3})$   
=

3.  $(8 \times 10^{11}) + (8 \times 10^{10}) + (9 \times 10^9) + (3 \times 10^8) + (6 \times 10^7) +$   
 $(6 \times 10^6) + (4 \times 10^5) + (4 \times 10^4) + (2 \times 10^3) + (8 \times 10^2) +$   
 $(4 \times 10^1) + (7 \times 10^0) + (3 \times 10^{-1}) + (9 \times 10^{-2}) + (8 \times 10^{-3})$   
=

4.  $(7 \times 10^{11}) + (7 \times 10^{10}) + (3 \times 10^9) + (3 \times 10^8) + (8 \times 10^7) +$   
 $(7 \times 10^6) + (4 \times 10^5) + (5 \times 10^4) + (5 \times 10^3) + (1 \times 10^2) +$   
 $(6 \times 10^1) + (5 \times 10^0) + (2 \times 10^{-1}) + (6 \times 10^{-2}) + (7 \times 10^{-3})$   
=

5.  $(4 \times 10^{11}) + (2 \times 10^{10}) + (4 \times 10^9) +$   
 $(4 \times 10^6) + (8 \times 10^5) + (2 \times 10^4) + (6 \times 10^3) + (9 \times 10^2) +$   
 $(3 \times 10^1) + (2 \times 10^0) + (9 \times 10^{-1}) + (2 \times 10^{-2}) + (3 \times 10^{-3})$   
=

6.  $(4 \times 10^{11}) + (5 \times 10^{10}) + (7 \times 10^9) + (1 \times 10^8) + (1 \times 10^7) +$   
 $(6 \times 10^6) + (7 \times 10^4) + (8 \times 10^3) + (6 \times 10^2) +$   
 $(7 \times 10^1) + (9 \times 10^0) + (8 \times 10^{-1}) + (4 \times 10^{-2}) + (8 \times 10^{-3})$   
=

# Numbers in Standard Form (I) Answers

Write the following expanded numbers in standard form.

$$\begin{aligned} 1. & (3 \times 10^{11}) + (4 \times 10^{10}) + (4 \times 10^9) + (4 \times 10^8) + (1 \times 10^7) + \\ & (2 \times 10^6) + (6 \times 10^5) + (6 \times 10^4) + (3 \times 10^3) + (2 \times 10^2) + \\ & (3 \times 10^1) + (1 \times 10^0) + (8 \times 10^{-1}) + (6 \times 10^{-2}) + (1 \times 10^{-3}) \\ & = \quad \quad \quad \mathbf{344,412,663,231.861} \end{aligned}$$

$$\begin{aligned} 2. & (8 \times 10^{11}) + (3 \times 10^{10}) + (8 \times 10^9) + (1 \times 10^8) + (6 \times 10^7) + \\ & (2 \times 10^6) + (5 \times 10^4) + (8 \times 10^3) + (5 \times 10^2) + \\ & (3 \times 10^1) + (4 \times 10^0) + (2 \times 10^{-1}) + (3 \times 10^{-2}) + (3 \times 10^{-3}) \\ & = \quad \quad \quad \mathbf{838,162,058,534.233} \end{aligned}$$

$$\begin{aligned} 3. & (8 \times 10^{11}) + (8 \times 10^{10}) + (9 \times 10^9) + (3 \times 10^8) + (6 \times 10^7) + \\ & (6 \times 10^6) + (4 \times 10^5) + (4 \times 10^4) + (2 \times 10^3) + (8 \times 10^2) + \\ & (4 \times 10^1) + (7 \times 10^0) + (3 \times 10^{-1}) + (9 \times 10^{-2}) + (8 \times 10^{-3}) \\ & = \quad \quad \quad \mathbf{889,366,442,847.398} \end{aligned}$$

$$\begin{aligned} 4. & (7 \times 10^{11}) + (7 \times 10^{10}) + (3 \times 10^9) + (3 \times 10^8) + (8 \times 10^7) + \\ & (7 \times 10^6) + (4 \times 10^5) + (5 \times 10^4) + (5 \times 10^3) + (1 \times 10^2) + \\ & (6 \times 10^1) + (5 \times 10^0) + (2 \times 10^{-1}) + (6 \times 10^{-2}) + (7 \times 10^{-3}) \\ & = \quad \quad \quad \mathbf{773,387,455,165.267} \end{aligned}$$

$$\begin{aligned} 5. & (4 \times 10^{11}) + (2 \times 10^{10}) + (4 \times 10^9) + \\ & (4 \times 10^6) + (8 \times 10^5) + (2 \times 10^4) + (6 \times 10^3) + (9 \times 10^2) + \\ & (3 \times 10^1) + (2 \times 10^0) + (9 \times 10^{-1}) + (2 \times 10^{-2}) + (3 \times 10^{-3}) \\ & = \quad \quad \quad \mathbf{424,004,826,932.923} \end{aligned}$$

$$\begin{aligned} 6. & (4 \times 10^{11}) + (5 \times 10^{10}) + (7 \times 10^9) + (1 \times 10^8) + (1 \times 10^7) + \\ & (6 \times 10^6) + (7 \times 10^4) + (8 \times 10^3) + (6 \times 10^2) + \\ & (7 \times 10^1) + (9 \times 10^0) + (8 \times 10^{-1}) + (4 \times 10^{-2}) + (8 \times 10^{-3}) \\ & = \quad \quad \quad \mathbf{457,116,078,679.848} \end{aligned}$$